

end face (30) are open at each end along the collector end face (30), as recited in Claims 15 and 20 of the present application. In fact, Burr teaches away from Applicants' invention when in column 1, lines 30-33, he states that filler material is "permanently secured in a recess formed in the brush body" and that "it is preferred to locate the strips close to opposite edges of the working face of the brush, since this arrangement of the lubricating strips tends to provide a smoother riding brush." (See column 4, lines 2-6.)

Furthermore, the slots or recesses 2 in Figure 2 of the Burr patent are open since Figure 2 shows an intermediate stage of the brush 1 prior to the filling of the slots 2 with plastic composition or filler 3 (cf. page 1 of the description, column 1, lines 48 to 50). Therefore, if the slots 2 are open, then this would also mean that the brush 1 according to Figure 2 does not contain any lubricant at all, which in turn means that all the features regarding the lubricant recited in Claims 15 and 20 could not have been anticipated by Burr.

However, Burr intends to provide slots or recesses 2 that are filled with a plastic heat-hardenable composition 3. The brush body 1 is baked to solidify the insert 3 and provide one or more lubricating strips 3 extending to the bearing face. The one or more lubricating strips 3 are integrally united to the body of the brush 1 (cf. page 1 of the description, column 2, lines 6 to 11). Since these slots or recesses 2 are completely filled with the plastic material 3, they cannot be interpreted as grooves that are open at each end along the collector-side end face according to Claims 15 and 20. Therefore, Claims 15 and 20 are novel and not anticipated by Burr.

Since Burr pursues a completely different way of lubrication (baked plastic), it would not have been obvious for one skilled in the art to modify his invention in an attempt to approximate the subject matter of claims 15 and 20.

Claims 21 and 24 depend from, and include all the limitations of, Claims 20 and 15, respectively, and therefore Claims 21 and 24 are likewise not anticipated by Burr. Furthermore, Burr does not teach the limitation that "the collector (8) has a plurality of grooves (28)," as recited in claims 21 and 24.

For at least the reasons discussed above, withdrawal of the rejection under 35 U.S.C. §102 (b) of Claims 15, 20, 21 and 24 is hereby respectfully requested.

The Rejection of Claims 6, 10, 11 14, 16, 19, 22 and 23 under 35 U.S.C. § 103 (a) should be withdrawn

Claims 6, 10, 11, 14, 16, 19, 22 and 23 stand rejected under 35 U.S.C. § 103 (a). The Patent Office has contended that these claims are unpatentable over Burr (U.S. Patent No. 2,172,045) in view of Portail (U.S. Patent No. 2,555,997). Applicants respectfully submit that this rejection should be withdrawn for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), not only must the prior art teach or suggest each element of the claim, the prior art must also suggest combining the elements in the manner contemplated by the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F. 2d 931, 934 (Fed. Cir. 1990), cert. denied 111 S.Ct. 296 (1990); In re Bond, 910 F. 2d 831, 834 (Fed. Cir. 1990). The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. See M.P.E.P. §2142. To establish a *prima facie* case of obviousness, the Examiner must show, *inter alia*, that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references and that, when so modified or combined, the prior art teaches or suggests all of the claim limitations. See M.P.E.P. §2143. Applicants respectfully submit that neither of these criteria for obviousness are met here.

Burr is directed to a brush 1 having narrow recesses or slots 2 filled with insert or filler 3. Portail discloses a sliding contact of electric machines where a thin layer of a lubricant is spread over a commutator 1 via a brush 2. However, the combination of Burr and Portail does not teach or suggest all the limitations of the present claimed invention. For example, the combination of Burr and Portail does not teach that the plurality of grooves (31) along the collector end face (30) are open at each end along the collector end face (30), as recited in Claims 6 and 10 of the Applicants. In fact, Burr teaches away from Applicants' invention when in column 1, lines 30-33, he states that filler material is "permanently secured in a recess formed in the brush body," and in column 4, lines 2-6, that "it is preferred to locate the strips close to opposite edges of the working face of the brush, since this arrangement of the lubricating strips tends to provide a smoother riding brush."

Additionally, combining Portail with Burr would defeat both the invention of Burr as well as the invention of Portail, as Burr teaches the use of a filler material that is "permanently secured in a recess formed in the brush body, (see column 1, lines 30-33), while Portail teaches the use

of brushes through which thin film (11) that can be fed through (see column 4, lines 13-15), and a thin film (11) of Portail cannot be permanently secured to the recesses (2) of Burr, nor can the permanently securable filler material (3) of Burr be fed through the brush (2) of Portail.

Furthermore, the Patent Office argues that it would have been obvious for one skilled in the art to replace Burr's soft lubricant by Portail's oil lubricant. However, the Patent Office has not provided any basis for suggesting that there is a motivation for a person skilled in the art to make such replacement of the lubricants. There is clearly no suggestion in Burr or Portail to make the asserted replacement of lubricants.

Claims 11, 14, 16, 19, 22 and 23 depend from, and include all the limitations of, Claim 10 or Claim 6, so claims 11, 14, 16, 19, 22 and 23 are similarly allowable over the combination of Burr and Portail.

For at least the reasons discussed above, withdrawal of the rejection under 35 U.S.C. §103 (a) of Claims 6, 10, 11 14, 16, 19, 22 and 23 is hereby respectfully requested.

**The Rejection of Claims 12 and 17 under 35 U.S.C. § 103 (a) should be withdrawn**

Claims 12 and 17 stand rejected under 35 U.S.C. § 103 (a). The Patent Office has contended that these claims are unpatentable over Burr (U.S. Patent No. 2,172,045) in view of Portail (U.S. Patent No. 2,555,997) and further in view of Grunewald et al. (U.S. Patent No. 3,841,906). Applicants respectfully submit that this rejection should be withdrawn for at least the following reasons.

The earlier discussion with reference to Burr and Portail is incorporated herein by reference since Claims 12 and 17 depend from Claims 10 and 6, respectively.

Grunewald is directed to a method of treating a carbon current collection brush blank 11 and a brush resulting therefrom. However, Grunewald does not overcome the deficiencies of Burr and Portail as applied against Claims 10 and 6, e.g., failure to disclose a brush wherein the brush has a plurality of grooves along the collector-side end face and wherein the grooves are open at each end along the collector-side end face. Additionally, Grunewald discloses the use of zinc or cadmium naphthenate solution to impregnate the carbon brush blank, while Applicants recite in Claims 12 and 17 that the brush is made from carbon, pressed metal powder or alloys thereof. For these reasons, Claims 12 and 17 are not obvious over Burr and Portail in view of Grunewald.

For at least the reasons discussed above, withdrawal of the rejection under 35 U.S.C. §103 (a) of Claims 12 and 17 is hereby respectfully requested.

**The Rejection of Claims 13 and 18 under 35 U.S.C. § 103 (a) should be withdrawn**

Claims 13 and 18 stand rejected under 35 U.S.C. § 103 (a). The Patent Office has contended that these claims are unpatentable over Burr (U.S. Patent No. 2,172,045) in view of Portail (U.S. Patent No. 2,555,997) and further in view of Rogelein et al. (U.S. Patent No. 4,820,948). Applicants respectfully submit that this rejection should be withdrawn for at least the following reasons.

The earlier discussion with reference to Burr and Portail is incorporated herein by reference since Claims 13 and 18 depend from Claims 10 and 6, respectively.

Rogelein discloses an electric motor 1 having a rubber collar 29 to trap oil 34. However, Rogelein does not overcome the deficiencies of Burr and Portail as applied against Claims 6 and 10, e.g., failure to disclose a brush wherein the brush has a plurality of grooves along the collector-side end face and wherein the grooves are open at each end along the collector-side end face. Furthermore, Rogelein discloses a motor having a rubber collar to trap oil, while Applicants recite in Claims 13 and 18 that the brush 19, 20 is protected by a dust guard 25. For these reasons, Claims 13 and 18 are not obvious over Burr and Portail in view of Rogelein.

For at least the reasons discussed above, withdrawal of the rejection under 35 U.S.C. §103 (a) of Claims 13 and 18 is hereby respectfully requested.

**CONCLUSION**

It is therefore respectfully submitted that Claims 6 and 10-24 are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

The Examiner is urged to allow this case; however, in the event that this case is not allowed, the Applicants request that the Examiner enter this Amendment to put the claims in a better condition for Appeal.